REMARKS

This Amendment is fully responsive to the non-final Office Action dated December 31, 2008, issued in connection with the above-identified application. Claims 1-19 were previously pending in the present application. With this Amendment, claims 9, 11, 13, 14, 17 and 19 have been amended; and claims 1-8, 10, 15, 16 and 18 have been canceled without prejudice or disclaimer to the subject matter therein. Accordingly, claims 9, 11-14, 17 and 19 are all the claims pending in the present application. No new matter has been introduced by the amendments made to the claims. Favorable reconsideration is respectfully requested.

To facilitate the Examiner's reconsideration of the present application, the Applicants have provided amendments to the specification and the abstract. The changes to the specification and the abstract include minor editorial and clarifying changes. No new matter has been introduced by the amendments made to the specification and the abstract.

In the Office Action, the drawings have been objected to for failing to show each and every feature recited in the claims. Specifically, the Examiner alleges that the claimed features "an audio decoder which decodes a coded signal, said decoder comprising: a first coded signal obtained by coding a two-channel stereo signal downmixed from a multi-channel signal exceeding two channels, a second coded signal obtained by coding information for generating a multi-channel signal from the stereo signal, and a signal representing a code size of the second coded signal; and a decoding unit operable to decoded the obtained coded signal, and to output a stereo signal," are not shown in the figures. The Applicants have amended the claims such that all the structural elements recited in the claims are clearly illustrated in the figures.

For example, claim 9 recites the following features:

"[a]n audio decoder which decodes a coded signal, said decoder comprising:

an obtaining unit configured to obtain coded signals including a) a first coded signal obtained by coding a two-channel stereo signal downmixed from a multi-channel signal exceeding two channels, b) a second coded signal obtained by coding information for generating a multi-channel signal from the stereo signal, and c) a signal representing a code size of the second coded signal; and

a decoding unit configured to decode the obtained coded signals, and to output a stereo signal,

wherein said decoding unit includes:

a first coded signal readout unit configured to read the first coded signal out of the obtained coded signals;

a code size readout unit configured to read a signal representing a code size of the second coded signal out of the coded signals; and

a first decoding unit configured to decode the first coded signal read out by said first coded signal readout unit, and to output the stereo signal,

said first coded signal readout unit being configured to skip the second coded signal based on the code size read out by said code size readout unit."

The Applicants respectfully point out that all the structural features recited in the claims are illustrated in Fig. 9. The "obtaining unit" of claim 9 corresponds to the first coded signal extracting unit 600 and the second coded signal extracting unit 601; the "decoding unit" of claim 9 corresponds to the first decoding unit 602; the "first coded signal readout unit" of claim 9 corresponds to the first coded signal extracting unit 600; the "code size readout unit" of claim 9 corresponds to the code size extracting unit 603; and the "first decoding unit" of claim 9 corresponds to the first decoding unit 602.

Additionally, the signal of claim 9 (i.e., a first coded signal obtained by coding a two-channel stereo signal downmixed from a multi-channel signal exceeding two channels, b) a second coded signal obtained by coding information for generating a multi-channel signal from the stereo signal, and c) a signal representing a code size of the second coded signal) is also clearly illustrated with reference to the encoder in Fig. 8 (i.e., downmix unit, second coding unit and code size calculating unit, which create the signal).

Accordingly, the elements recited in the claims are illustrated by the drawings and described in the Applicants' specification such that one of ordinary skill in the art would understand the present invention as claimed. Withdrawal of the objection to the drawings is respectfully requested.

In Office Action, claims 9, 12 and 17 have been rejected under 35 U.S.C. 102(b) as being

anticipated by Yoshida (Japanese Patent Application No. 2001-100792, hereafter "Yoshida"). The Applicants have amended independent claims 9 and 17 to help further distinguish the present invention from the cited prior art. Independent claim 9, as amended, recites the following features:

"[a]n audio decoder which decodes a coded signal, said decoder comprising:

an obtaining unit configured to obtain coded signals including a) a first coded signal obtained by coding a two-channel stereo signal downmixed from a multi-channel signal exceeding two channels, b) a second coded signal obtained by coding information for generating a multi-channel signal from the stereo signal, and c) a signal representing a code size of the second coded signal; and

a decoding unit configured to decode the obtained coded signals, and to output a stereo signal,

wherein said decoding unit includes:

a first coded signal readout unit configured to read the first coded signal out of the obtained coded signals;

a code size readout unit configured to read a signal representing a code size of the second coded signal out of the coded signals; and

a first decoding unit configured to decode the first coded signal read out by said first coded signal readout unit, and to output the stereo signal,

said first coded signal readout unit being configured to skip the second coded signal based on the code size read out by said code size readout unit."

The features noted above in independent claim 9 are similarly recited in independent claim 17. Additionally, the features noted above are fully supported by the Applicants' disclosure (see e.g., Fig. 9).

The present invention (as recited in independent claims 9 and 17) is distinguishable over the cited prior art in that the decoder or decoding steps of the present invention can omit calculating the code size of the second coded signal to be skipped in the readout because: a code size readout unit reads a signal representing a code size of the second coded signal out of the coded signals; and a first decoding unit decodes the first coded signal read out by the first coded

signal readout unit, and outputs the stereo signal, wherein the first coded signal readout unit skips the second coded signal based on the code size read out by the code size readout unit.

This allows the present invention to produce a particularly advantageous effect of reducing the processing load of calculating the code size and achieving smooth stereo reproduction of coded signals. No such features or advantages of the present invention are disclosed or suggested by the cited prior art.

In the Office Action, the Examiner relies on Yoshida for disclosing or suggesting all the features recited in independent claims 9 and 17. However, the Applicants assert that Yoshida fails to disclose or suggest all the features recited in independent claims 9 and 17, as amended.

Yoshida discloses a downmixing circuit that receives a five-channeled multi-channel audio signal and outputs a two-channel reproduced signal; and a coding device that codes a part of the multi-channel audio signal and the two-channel reproduced signal so as to output transmission data.

In addition, Yoshida discloses in paragraph [0035] that the decoding device can obtain an audio signal necessary for two-channel reproduction by decoding the signal in the header information, and voice data (i.e., Loch signal, and Roch signal); and then skipping, without processing, the remaining channel information when only two-channel reproduction is intended.

Thus, Yoshida discloses only processing the downmixed signal, and skipping, without processing, the remaining channel information. Yoshida fails to disclose that the transmission data obtained by coding a part of the multi-channel signal and the downmixed signal includes information which indicates the code size of the data to be skipped, without being processed, when performing two-channel reproduction.

Accordingly, in Yoshida, when only two-channel reproduction is intended, it is necessary, after decoding the header information and voice data (i.e., Loch and Roch signals) in a frame, to calculate the code size to be skipped up to the header information in the subsequent frame. That is, in Yoshida, it is necessary to provide a process for reading the data length of the variable length frame and the data length of the voice data (i.e., Loch and Roch signals) from the header information, and then subtracting the data length of the voice data (i.e., Loch and Roch signals) from the data length of the variable length frame, so as to calculate the length of

the data to be skipped in the readout.

Based on the above discussion, independent claims 9 and 17 (as amended) are not anticipated or rendered obvious by Yoshida. Additionally, claim 12 is not anticipated or rendered obvious by Yoshida at least by virtue of its dependency from independent claim 9.

In the Office Action, claims 10 and 19 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Miyasaka et al. (U.S. Patent No. 7,260,540, hereafter "Miyasaka"); claims 13-15 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Tokunaga (Japanese Patent Application No. 2000-295698, hereafter "Tokunaga"); and claim 11 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Miyasaka, and further in view of Tokunaga.

Claims 10 and 15 have been canceled thereby rendering the above rejection to those claims moot. And, independent claim 19 has been amended to help further distinguish the present invention from the cited prior art. Independent claim 19 has been amended to include similar features of independent claim 9 (as amended). Independent claim 19 recites the following features:

"[a] program stored on a computer-readable storage medium and used in an audio decoder which decodes a coded signal, said program causing a computer to function as the following respective units:

an obtaining unit configured to obtain coded signals including a) a first coded signal obtained by coding a two-channel stereo signal downmixed from a multi-channel signal exceeding two channels, b) a second coded signal obtained by coding information for generating a multi-channel signal from the stereo signal, and c) a signal representing a code size of the second coded signal; and

a decoding unit configured to decode the obtained coded signals, and outputs a stereo signal,

wherein said program further causes the decoding unit to operate as:

a first coded signal readout unit configured to read the first coded signal out of the obtained coded signals;

a code size readout unit configured to read a signal representing a code size of the

second coded signal out of the coded signals; and

a first decoding unit configured to decode the first coded signal read out by said first coded signal readout unit, and to output the stereo signal,

said first coded signal readout unit being configured to skip the second coded signal based on the code size read out by said code size readout unit."

In the Office Action, the Examiner relies on Yoshida in view of Miyasaka for disclosing or suggesting all the features recited in independent claim 19. However, the Applicants assert that Yoshida in view of Miyasaka fails to disclose or suggest all the features recited in independent claim 19, as amended.

As noted above, Yoshida fails to disclose or suggest the features recited in independent claim 9 (as amended); and independent claim 19 has been amended to include similarly features of independent claim 9 (as amended). Accordingly, independent claim 19 (as amended) is distinguished over Yoshida for similar reasons noted above for independent claim 9.

Moreover, Miyasaka fails to overcome the deficiencies noted above in Yoshida. Miyasaka discloses a narrow-band decoding unit that reproduces a PCM signal P1; a wide-band decoding unit that reproduces a PCM signal P2 having a frequency band which is wider than that of the PCM signal P1 from the narrow-band bit stream and a band expanding bit stream; and a decoding unit that selects, so as to output, either the PCM signal P1 or the PCM signal P2 depending on whether to obtain a high-quality audio signal or to save electric power.

However, nothing in Miyasaka discloses or suggests that the decoding unit can omit calculating the code size of the second coded signal to be skipped in the readout because: a code size readout unit reads a signal representing a code size of the second coded signal out of the coded signals; and a first decoding unit decodes the first coded signal read out by the first coded signal readout unit, and outputs the stereo signal, wherein the first coded signal readout unit skips the second coded signal based on the code size read out by the code size readout unit (as recited in independent claim 19, as amended). Therefore, no combination of Yoshida and Miyasaka would result in, or otherwise render obvious, independent claim 19, as amended.

Additionally, claim 11, 13 and 14 depend from independent claim 9. As noted above, Yoshida and Miyasaka fails to disclose or suggest all the features recited in independent claim 9. Additionally, Tokunaga fail to overcome the deficiencies noted above in Yoshida and Miyasaka

Specifically, Tokunaga discloses a virtual surround device that receives an input of a multi-channel audio signal, detects the position of the X-Y coordinates corresponding to the front speakers for the listener, and performs virtual surround processing corresponding to the detected positional information.

More specifically, in Tokunaga, the virtual surround device searches the HRTF coefficient database for an HRTF coefficient corresponding to the positional information on the listener and performs audio image control using the HRTF coefficient obtained as the search result, to thereby output a rear surround sound by using only the right front speaker and the left front speaker.

However, similar to Miyasaka, nothing in Tokunaga discloses or suggest that the virtual surround device can omit calculating the code size of the second coded signal to be skipped in the readout because: a code size readout unit reads a signal representing a code size of the second coded signal out of the coded signals; and a first decoding unit decodes the first coded signal read out by the first coded signal readout unit, and outputs the stereo signal, wherein the first coded signal readout unit skips the second coded signal based on the code size read out by the code size readout unit (as recited in independent claim 19, as amended).

Accordingly, no combination of Yoshida, Miyasaka and Tokunaga, would result in or otherwise render obvious, claims 11, 13 and 14 at least by virtue of their dependencies from independent claim 9.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the present application to issue.

The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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